

## BOTULISM CALLED DEADLIEST POISON

Harvard School Finds It Million Times Worse Than Prussic Acid

141 DIE IN 22 YEARS

Better Methods of Canning Reduce Danger; Results of Experiments Announced

NEW YORK, Oct. 17.—That the poison produced by the bacillus of botulism is about a million times as deadly as prussic acid, although not as quick in its operation, is indicated by experiments at Harvard Medical school, in which it has been found that very few molecules of the poison, and perhaps a single molecule, may suffice to kill a mouse.

Two groups of people, one in the United States and one in Sweden, have been killed by this deadly poison, and cases have been reported from time to time throughout the country. The most striking recent case occurred in August at each Maine, in Scotland, where a small jar of pickled corned beef had been killed eight persons who ate of it. Free oxygen kills the germ.

The poison occurs very rarely, but when it does, several persons usually die and it is killed, so that attention by this poison frequently attracts wide attention. Its total mortality in a year is small. The proper boiling of food after it is canned kills the germ. If the can does develop the bacillus of botulism, the poison loses much of its deadliness if the food is thoroughly cooked before being eaten.

Four people living in States Island were killed by botulism in a little more than a year ago, when they ate of a food of some kind, said Dr. Charles Norris, chief medical examiner. "A year before four or five people were killed in the Bronx by botulism poisoning. The symptoms usually take 18 hours to develop, and bear some resemblance to infantile paralysis. There is a paralysis of the muscles of the body, but the mind is clear. Death follows usually in four or five days. I understand that an anti-toxin against botulism has been developed in Ohio, but it is difficult to use, because the symptoms do not develop until the poison has progressed. The bacillus is not pathogenic; that is, it does not grow in the human system, but it is the toxin which it has already produced causes death."

The Harvard experiments indicate that a single molecule may attack and destroy small groups of cells in the body of a living creature, the destruction of one cell being sufficient to cause death. The experiments have expressed unwillingness to believe their own results, though apparently verified by the results on many mice.

Previously it had been reported that most victims of a drop of the poison caused death. A single molecule is as small compared to a drop as a drop is compared to the water of New York harbor. If one molecule has the power attributed to it, it would mean that if a gallon of poison were uniformly mixed in the water of the harbor, a few drops of water taken from any part of the harbor and injected into the mouse would kill it. It was found that when the solution was so diluted that only one molecule was present in a million of the water, the mouse died. The decrease in the number of child wage earners in 1920 was widespread throughout the country. Both in cities and rural districts the figures show marked decreases. In only two classifications did their number increase—clerical occupations and "public service"—where their number jumped from 537 to 1,130 and 71,061 to 86,119, respectively. All of the states showed decreases in the proportion of boys gainfully employed, with the District of Columbia standing alone with an increase. In the proportion

has been attributed to turkey, chicken and fish. While the victims frequently show the symptoms in from sixteen to eighteen hours, they do not always develop before 36 hours. Weakness, dizziness, headache and nausea first make their appearance. There is difficulty of vision. Patients sometimes see double. The eyelids often droop, and control over them is lost, so that the sufferer can see only by lifting them with his fingers. The effects flow from the attack of the poison on a particular brain center. Other brain centers become involved. Swallowing becomes difficult. The muscles controlling the voice become paralyzed. The paralysis spreads to the lips, tongue and respiration, and the victim gasps for breath. In the end paralysis of the respiration and the heart becomes complete and there is death.

Although deaths have been reported more frequently from botulism lately, it is not believed that the disease is on the increase. Deaths of the same kind have occurred in the past, but have been dismissed under the general name of food poisoning. Cases are apt to be infrequent because canners and preservers of food have been thoroughly informed in methods of treating food so that danger of botulism does not exist.

## DECREASE SHOWN IN CHILD LABOR

Figures Show Marked Falling Off in Children Employed in U. S.

WASHINGTON, Oct. 17.—The marked decrease in the number of children between 10 and 15 years old who are at work, shown by census figures for 1920 just published, is more apparent than real, according to Dr. Alba M. Edwards, census expert of the department of commerce. The question of child labor remains a problem, accentuated by the supreme court's recent decision, despite the optimistic figures of the census of 1920.

The number of boys and girls at work in 1920, according to the statistics compiled as of January 1 of that year, was 1,602,458, a decrease of 229,257 from the 1910 figures. But—and here is what largely nullifies the encouragement of the 1920 census—the 1910 census was compiled in mid-April, when spring planting operations were at the peak, and farmers throughout the country were begging for help. In January, however, the number of farm laborers at its lowest ebb.

"It is believed," Dr. Edwards reports, "that when the enumeration was made in 1920 many children usually employed as farm laborers were not at work and were not returned by the census enumerators as gainfully occupied. This appears to have been true especially in the case of children living on the home farm. The enumerators' schedules show that a considerable proportion of such children were returned as neither attending school nor being gainfully occupied."

Gain Inconsistent. On the face of the census returns only 647,309 children of both sexes were engaged in farm work in 1920 as against 1,424,428 in 1910. But too many children were enumerated as farm laborers in 1910, according to Dr. Edwards, who pointed out that, although an increase of 34.8 per cent occurred between 1900 and 1910 in the number of children employed on farms, there was "no similar increase in the total number of persons engaged in agricultural pursuits."

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Salads were supposed to be the chief cause of botulism. In the case of the last few years other foods have been involved, including string beans, cottage cheese, corn, separately sliced and spinach. It also

## Fancy and Tailored Suits Seek Favor With Milady This Fall



The coming winter has been hailed as a coat season, but that has not deterred many designers from building fashion suits for the women who want to suit "regardless." The three-piece suit seems to be the leading model when suits are thought of at all. They are worn for dress and afternoon costumes and then, of course, there is the sports or frock suit which should find a place in every fall and winter wardrobe.

Shown here are three suits designed for the 1922 season. The two in the center and at the right show what can be done in the way of a costume suit in light colored materials. Silver gray wool combined with gray crepe makes the suit at the right which would be charming as a "going away" suit for the fall bride. A simple tunic is joined to the straight wool skirt and a silver buckle gives a finishing touch to the costume. Wide sleeves and a standing collar are smart coat features.

Brown and tan barred material makes the extreme suit shown in the center. The coat features huge sleeves with deep cuffs of brown material, a tuxedo collar and a metal link belt. The skirt is long and narrow.

At the left is the type of suit which will be more popular. It is a swaggar walking suit made of a rough black and white imported homespun cloth. A fur collar adds a trimming touch which will be found very comfortable on brisk winter days. Shrug shoulders, light sleeves and deep patch pockets reflect the prevailing modes. Note the stout cane carried with the walking suit and the feminine tasseled affair carried with the fashion suit in the center.

number of girls in this category rose from 71 in 1910 to 145 in 1920. The increase being largely accounted for by an increase of 70 working in coal mines.

The encouraging decreases in child labor figures Doctor Edwards attributed in part to increased legal restrictions, more stringent compulsory school attendance laws and the better enforcement of these classes of laws.

"It is probable, also," he wrote, "that the greater popular disapproval of child labor decreased the tendency to employ children."

The Inter-Allied Veterans federation is represented by the American Legion, United States; Union Nationale des Combattants, France; Federation Nationale des Combattants, Belgium; British Legion; Union National des Combattants et

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## KEYSTONE BATTLE RESTS ON PINCHOT

Republican Nominee Is Storm Center in Bitter Campaign

HARRISBURG, Pa., Oct. 17.—Pennsylvania's gubernatorial campaign is proving as unusual as was the primary when Clifford Pinchot triumphed over the republican organization. The campaign is already where it has generally been about the middle of November. In normal years, and the interest is going to be sustained. The smashing of precedent and the taking of Keystone state politics out of the old lines, which it was predicted would follow the loss of Penrose, have all come about, and rather earlier than anticipated.

Both of the old parties have undergone a change in leadership, and the military democrats are going after Clifford Pinchot, under the banner of the privilege of his victory in the battle for the nomination. They are not carrying over which Representative W. W. Grist presided in Lancaster county, most stalwart of the republican counties, and where Grist has a fight of proportions on his hands. Grist in recent years, the republican nomination, had won it, and would stand as the republican candidate and nothing else.

Direct attacks upon Pinchot as a part of the Sigurd administration characterize the democratic speech.

nomination of the third party, engineered under the heretofore chairmanship of the progressives and in the interest of Representative William J. Burke for senator, has taken a good bit of the wind out of the sails of that venture. He did this even when it was represented to him that it might mean 100,000 votes, and in the face of an apathy in regard to registration in the cities that surprised every one.

For the last 10 days Pinchot has been on the stump, and has reiterated everything for which he stood in the primary, with the new pledge to clear the highways of bootleggers, in addition to cleaning capital bill of what he terms the "mess." In spite of influential suggestions that he refrain from his "dry" stand and that he soft-pedal on the "mess" position, he has reiterated both. He has avoided getting entangled in the controversy over the expansion of the educational system, as was hoped by his democratic opponents, but has pledged his aid to see that the state keeps its contract with the school districts and pays them their allowances promptly. The state now owes districts \$2,000,000 according to expert reckoning, which is objected to by some school men, who say all certifications have not been made.

Pinchot's declaration of the third party nomination took place at a meeting over which Representative W. W. Grist presided in Lancaster county, most stalwart of the republican counties, and where Grist has a fight of proportions on his hands. Grist in recent years, the republican nomination, had won it, and would stand as the republican candidate and nothing else.

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